

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"6833615".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 12:22
L2	17	("4024629"   "5315485"   "5425816"   "5464682"   "5489750"   "5535101"   "5591941"   "5706178"   "5784262"   "5796589"   "5815374"   "5875102"   "5936309"   "5936848"   "6414248"   "6429389"   "6622905").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/06 12:23
L3	1	("6833615").URPN.	USPAT	OR	ON	2006/09/06 12:31
L4	1	"6870267".pn.	USPAT	OR	ON	2006/09/06 12:31
L5	21	("5148265"   "5148266"   "5216278"   "5518964"   "5597470"   "5679194"   "5706178"   "5738269"   "5763941"   "5796589"   "5796590"   "5798286"   "5807453"   "5859472"   "5875102"   "5913109"   "5915752"   "5937276"   "5976913"   "6201305"   "6265776").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/06 12:35
L6	1	"6980015".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/06 12:36
L7	15	("20030102156"   "20040099647"   "4116519"   "4897918"   "5012187"   "5591941"   "5940278"   "5953214"   "5982027"   "6154040"   "6203637"   "6258625"   "6529027"   "6577013"   "6638080").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/06 12:37
L8	44	("4897918").URPN.	USPAT	OR	ON	2006/09/06 12:38

## EAST Search History

L12	73	(US-20040253764-\$).did. or (US-6251502-\$ or US-6525275-\$ or US-6607825-\$ or US-6534723-\$ or US-5589255-\$ or US-5055321-\$ or US-5795618-\$ or US-6174353-\$ or US-6365843-\$ or US-5519177-\$ or US-6828510-\$ or US-5854513-\$ or US-6487088-\$ or US-6835895-\$ or US-6376052-\$ or US-6376049-\$ or US-6392898-\$ or US-5589250-\$ or US-7034402-\$ or US-6261671-\$ or US-5878943-\$ or US-5344893-\$ or US-5175060-\$ or US-6613662-\$ or US-5447996-\$ or US-6291778-\$). did. or (US-6248428-\$ or US-6217988-\$ or US-6303880-\$ or US-6762921-\$ or US-6724638-\$ or US-6490170-\$ or US-5591941-\$ or US-6217987-\$ or US-7078820-\$ or US-5741575-\$ or US-5688583-\$ or US-6010768-\$ or US-6411519-\$ or US-6179200-\$ or US-6831234-\$ or US-6833615-\$ or US-6622905-\$ or US-6414248-\$ or US-5936848-\$ or US-5875102-\$ or US-5815374-\$ or US-5796589-\$ or US-5784262-\$ or US-5706178-\$ or US-5535101-\$ or US-5464682-\$ or US-5425816-\$). did. or (US-5315485-\$ or US-6870267-\$ or US-6265776-\$ or US-5976913-\$ or US-5915752-\$ or US-5913109-\$ or US-5859472-\$ or US-5807453-\$ or US-5763941-\$ or US-5738269-\$ or US-5597470-\$ or US-5518964-\$ or US-5148266-\$ or US-5148265-\$ or US-6980015-\$ or US-6957760-\$ or US-6913949-\$ or US-6897565-\$ or US-5323947-\$). did.	US-PGPUB; USPAT	OR	ON	2006/09/06 15:17
L13	0	12 and (voltage adj monitor)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:18
L14	3657	volt\$3 adj monitor\$1	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:19
L15	0	12 and 14	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:19
L16	43	14 and (pcb or (printed adj circuit adj board)) and via and mask	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:23

## EAST Search History

L17	487167	diode	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:23
L18	0	12 and diode	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:23
L19	1	"6724194".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:27
L20	1	"4768195".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:32
L21	1	"6,831,234".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/09/06 15:32
S1	318	pad\$1 and (crack\$3 same (solder\$3 adj ball\$1)) and trac\$3 and metal and mask	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/06 18:24
S2	1	"6914779".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/06 15:18
S3	3266	pad\$1 and (crack\$3 adj solder\$3 adj ball\$1) and trac\$3 and metal and mask	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/06 18:26
S4	0	crack adj initial adj point	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/06 18:26
S5	3	((motoo and asai).in.) and (roughend adj layer)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 18:21
S6	392	(motoo and asai).in.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 19:24
S7	5	((motoo and asai).in.) and pad\$1 and trac\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 19:26
S8	4	((motoo and asai).in.) and pad\$1 and trac\$3 and (solder adj bump)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:10
S9	0	(solder\$3 adj bump\$1) and (roughend adj layer) and pad\$1 and trac\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:12
S10	0	174/250.ccls. and (roughend adj layer)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:15

## EAST Search History

S11	1182	174/250.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:30
S12	2015	174/260.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:37
S13	0	174/260.ccls. and (roughend adj layer) and pad\$1 and trac\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:31
S14	1901	174/261.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 20:58
S15	542	361/772.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:05
S16	439	361/773.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:08
S17	597	361/774.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:12
S18	821	361/777.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:12
S19	1	("5,383,793").PN.	USPAT; USOCR	OR	OFF	2006/02/07 21:18
S20	0	361/779.pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:44
S21	0	361/794.pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:44
S22	542	361/772.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:44
S23	423	361/779.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:45
S24	821	361/777.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/07 21:45
S25	14998	solder adj bump	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 14:16
S26	456494	pad	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 14:16

## EAST Search History

S27	1	"3993861".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 18:58
S28	1	"6876497"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 18:58
S29	1	"6930820"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 19:00
S30	1	"6751263"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 19:01
S31	1	"6933496"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/08 19:01
S32	12	("3114877"   "3449667"   "4238678"   "4633083"   "4883958"   "5371364"   "5574277"   "5736739"   "5811059"   "5955886").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/08 19:03
S33	1	"6887359"	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/08 20:04
S34	1	"6831234".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/08 20:05
S35	1	"6291778".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/08 20:05
S36	1	"6487088".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/09 13:34
S37	2061	228/180.22	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/09 14:16
S38	1219	228/180.22.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/02/09 14:16
S39	2	"6487088"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/08/23 11:34
S40	1	"6487088".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/08/23 11:34
S41	2	"7034402"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/08/23 15:05

## EAST Search History

S42	12	("4223337"   "5410184"   "5426266"   "5492235"   "5674780"   "5847466"   "5854513"   "6179200"   "6404051"   "6464122"   "6577017"   "6613662").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 15:07
S43	38	(US-6607825-\$ or US-6174353-\$ or US-6724638-\$ or US-6303880-\$ or US-6828510-\$ or US-6534723-\$ or US-5055321-\$ or US-5741575-\$ or US-6835895-\$ or US-6831234-\$ or US-6411519-\$ or US-5688583-\$ or US-6392898-\$ or US-6525275-\$ or US-5795618-\$ or US-6490170-\$ or US-6487088-\$ or US-6762921-\$ or US-5175060-\$ or US-6291778-\$ or US-5344893-\$ or US-6251502-\$ or US-5447996-\$ or US-6261671-\$ or US-6248428-\$ or US-6217987-\$). did. or (US-6217988-\$ or US-6376052-\$ or US-6376049-\$ or US-6365843-\$ or US-5589255-\$ or US-6010768-\$ or US-5589250-\$ or US-5519177-\$ or US-7034402-\$ or US-6613662-\$ or US-6179200-\$ or US-5854513-\$).did.	USPAT	OR	ON	2006/08/23 15:11
S44	30	S43 and crack\$3	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/08/23 15:12
S45	3	S43 and crack\$3 and pad\$1 and (solder adj ball)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/08/23 15:12
S46	75	"5591941"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/08/23 16:06
S47	9	("3811183"   "5591941"   "5633533"   "5878943"   "5908317"   "6168972"   "6330967"   "6333206"   "6469393").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:10
S48	36	("3401126"   "3403438"   "3429040"   "3518756"   "3554877"   "3701076"   "3791858"   "3988405"   "4132341"   "4202007"   "4413309"   "4545610"   "4604644"   "4681654"   "4701482"   "4831724"   "4845542"   "4914814"   "4999699"   "5060844"   "5120678"   "5133495"   "5147084"   "5159535"   "5201451"   "5203075"   "5241133"   "5261155"   "5371328"   "5379189"   "5386624").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:21

## EAST Search History

S49	2740	(fatigue or crack) and (solder adj ball) and pad	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:23
S50	1598	(fatigue or crack) and (solder adj ball) and pad and ((pcb) or (printed adj circuit adj board))	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:24
S51	21	(fatigue or crack) and (solder adj ball) and pad and ((pcb) or (printed adj circuit adj board)) and microvia	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:30
S52	1598	(fatigue or crack) and (solder adj ball) and pad and ((pcb) or (printed adj circuit adj board))	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:45
S53	1950	(fatigue or crack\$3) and (solder adj ball\$1) and pad\$1 and ((pcb) or (printed adj circuit adj board\$1))	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/23 16:46